

REMARKS

Claims 1-11 were rejected for double patenting. Applicant requests reconsideration. The present application is different than US Patent 7,139,302, as claim 1 refers to a staggered Manchester code not found in the claims of US Patent 7,139,302. Notwithstanding, a terminal disclaimer is filed herewith.

Claims 1-11 were rejected as anticipated by Raghavan. Applicant requests reconsideration.

Independent claim 1 has been amended to include the limitations that the first spread spectrum signal and the second spread spectrum signal respectively uniphase modulating a carrier, and that, the dual spectrum signal is a uniphase dual spectrum signal. The specification has been amended to include the limitation of uniphase modulation. The drawing clearly shows that no quadrature modulation is used. The specification teaches synchronized modulation of a carrier. There is no reference to I and Q signals or quadrature modulation in the drawings. This uniphase modulation would be readily apparent to anyone skilled in the art. No new matter has been added.

The difference between the present invention and Raghavan lies in the differences in modulation signaling. Both are directed to CDMA communications. Both generate split and null spectra of two communicated signals. Raghavan teaches the use of quadriphase signaling, as independent claim 1 includes the limitation of

1 "modulated in quadrature". The drawings and specification of
2 Raghavan teach quadriphase modulation by the use of I and Q
3 quadrature signals. The present invention does not use I and Q
4 quadriphase signaling, but rather superimposes the two uniphase
5 signals. As such the present invention is not anticipated by
6 Raghavan.

7
8 The present invention is patentable over Raghavan as Raghavan
9 teaches quadrature modulation. Raghavan is directed specifically to
10 GPS communications where quadriphase signaling is employed using
11 QPSK modulator. This quadriphase signaling in Raghavan is enabled
12 by the use of 90° phase shifter 97, shown in Figures 2C and
13 reflected in Figure 2B, during modulation. This quadriphase
14 modulation requires quadriphase demodulation as enabled by a
15 tracking loop using quadrature demodulators 72 and 115, as
16 requiring a 90° phase off set signal. By contradistinction, the
17 present invention proceeds contrary to the teachings of Raghavan.
18 The present invention uses uniphase signaling and is applicable to
19 BPSK modulation. The present invention cannot be used for GPS
20 modulation and demodulation.

21
22 One looking to increase channel capacity of a uniphase
23 signaling system would not look to a quadriphase signaling system.
24 The natural development of the field of spread spectrum
25 communication is from BPSK to QPSK. Those skilled in the art in
26 QPSK communication would not see advantages to BPSK communications.
27 This is apparent by the lack of mention of split and null spectra
28 communication in Raghavan as applied to BPSK signaling. Raghavan,

1 is also a coinventor of the present application. Coinventor
2 Raghavan never thought at the time of Raghavan to apply the split
3 and null spectra of quadriphase communications backward to BPSK
4 communications. Further, Raghavan was concerned with adding a new
5 code for improved navigation that relies upon GPS quadriphase
6 signaling, that is not applicable to uniphase signaling of BPSK, as
7 BPSK is not used in a navigation system relying upon GPS quadrature
8 signals. Those skilled in the art of navigation systems broadcast
9 GPS QPSK signals for purposes of improving the pseudo range
10 accuracy, and do not think in terms of general communications
11 channel capacity, whereas, those skilled in the art general
12 communications think in terms of channel capacity. As such, one
13 skilled in the art would not look to teachings of GPS QPSK
14 signaling for improvement of pseudo range accuracy to increase
15 generally channel capacity in uniphase BPSK communication systems.

16 Raghavan teaches quadriphase signaling using split and null
17 spectra for increased pseudo range accuracy. Whereas, the present
18 invention teaches uniphase signaling, using split and null spectra
19 for increased channel capacity. Raghavan does not teach or suggest
20 the present invention. Allowance of claims is requested.

21 Respectfully Submitted

22 *Derrick Michael Reid*

23 Derrick Michael Reid

24 Derrick Michael Reid, Esq.

25 The Aerospace Corporation

26 PO Box 92957 M1/040

27 Los Angeles, Ca 90009-2957

28 Reg. No. 32,096